AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A fluorescent material of terbium aluminum garnet having a formula $(Tb_{3-x-y}Ce_xRe_y)Al_{5-z}O_{12}Me_z$, wherein $0 < x \leqq 0.8$, $0 < y \leqq 2.0$, $0 < z \leqq 1.0$ and wherein Re is at least one of gadolinium (Gd), rubidium (Rb), thulium (Tm), praseodymium (Pr), samarium (Sm), europium (Eu), dysprosium (Dy), holmium (Ho), erbium (Er), ytterbium (Yb), lutetium (Lu), strontium (Sr), yttrium (Y), vanadium (V), and chromium (Cr), and wherein Me is silicon.

2. (Cancelled)

3. (Previously Presented) The fluorescent material as claimed in claim 1, wherein the fluorescent material is excited by a light source having a wavelength between 430 nm and 490 nm.

4. (Previously Presented) A method for producing a fluorescent material of terbium aluminum garnet having a formula $(Tb_{3-x-y}Ce_xRe_y)Al_{5-z}O_{12}Me_z$, wherein $0 < x \leqq 0.8$, $0 < y \leqq 2.0$, $0 < z \leqq 1.0$, and wherein Re is at least one of gadolinium (Gd), rubidium (Rb), thulium (Tm), praseodymium (Pr), samarium (Sm), europium (Eu), dysprosium (Dy), holmium (Ho), erbium (Er), ytterbium (Yb), lutetium (Lu), strontium (Sr), yttrium (Y), vanadium (V), and chromium

(Cr), and wherein Me is silicon, the method being a solid reaction method comprising the steps of:

mixing metal compounds of terbium, aluminum, cerium, and Re;

grinding the mixture of metal compounds of terbium, aluminum, cerium, and Re;

calcinating the mixture;

sintering the mixture after calcination; and

grinding the mixture after sintering.

5. (Previously Presented) The method as claimed in claim 4, wherein the fluorescent material is excited by a light source having a wavelength between 430 nm and 490 nm.

6. (Cancelled)

7. (Original) The method as claimed in claim 4, wherein the metal compounds includes oxides, nitrates, organic metal compounds, or metal salts of terbium, aluminum, cerium, and Re, or the combinations thereof.

8. (Previously Presented) The method as claimed in claim 4, further including a step of using a reduction gas to reduce an ion of Re at 1200°C for 12 hours before the step of grinding the mixture after sintering.

9. (Previously Presented) The method as claimed in claim 8, wherein the reduction gas is H_2/N_2 (8%:92%).

10. (Previously Presented) A method for producing a fluorescent material of terbium aluminum garnet having a formula $(Tb_{3-x-y}Ce_xRe_y)Al_{5-z}O_{12}Me_z$, wherein $0 < x \leqq 0.8$, $0 < y \leqq 2.0$, $0 < z \leqq 1.0$, and wherein Re is at least one of gadolinium (Gd), rubidium (Rb), thulium (Tm), praseodymium (Pr), samarium (Sm), europium (Eu), dysprosium (Dy), holmium (Ho), erbium (Er), ytterbium (Yb), lutetium (Lu), strontium (Sr), yttrium (Y), vanadium (V), and chromium (Cr), and wherein Me is silicon, the method being a combustion method comprising:

mixing metal compounds of terbium, aluminum, cerium, and Re;

dissolving the mixture of metal compounds of terbium, aluminum, cerium, and Re;

heating the dissolved mixture;

chelating the heated mixture;

heating the mixture after chelation;

sintering the chelated mixture after heating; and

grinding the mixture after sintering.

11. (Previously Presented) The method as claimed in claim 10, wherein the fluorescent material is excited by a light source having a wavelength between 430 nm and 490 nm.

12. (Cancelled)

13. (Original) The method as claimed in claim 10, wherein the metal compounds includes oxides, nitrates, organic metal compounds, or metal salts of terbium, aluminum, cerium, and Re, or the combinations thereof.

14. (Previously Presented) The method as claimed in claim 10, further including a step of using a reduction gas to reduce an ion of Re at 1200°C for 12 hours before the step of grinding the mixture after sintering.

15. (Previously Presented) The method as claimed in claim 14, wherein the reduction gas is H_2/N_2 (8%:92%).

16. (Original) The method as claimed in claim 10, wherein the step of chelating the heated mixture uses a chelating agent that is an organic compound that releases at least one of inflammable gas and reducible gas when decomposed by heating.

17. (Currently Amended) A method for producing a fluorescent material of terbium aluminum garnet having a formula $(Tb_{3-x-y}Ce_xRe_y)Al_{5-z}O_{12}Me_z$, wherein $0 < x \leqq 0.8$, $0 < y \leqq 2.0$, $0 < z \leqq$ ~~z~~1.0, and wherein Re is at least one of gadolinium (Gd), rubidium (Rb), thulium (Tm), praseodymium (Pr), samarium (Sm), europium (Eu), dysprosium (Dy), holmium (Ho), erbium (Er), ytterbium (Yb), lutetium (Lu), strontium (Sr), yttrium (Y), vanadium (V), and chromium

(Cr), and wherein Me is silicon, the method being a synchronous precipitation method comprising:

mixing metal compounds of terbium, aluminum, cerium, and Re;

dissolving the mixture of metal compounds of terbium, aluminum, cerium, and Re;

basifying the dissolved mixture;

stirring the basified mixture;

heating the mixture after stirring;

calcinating the mixture after heating;

sintering the mixture after calcination; and

grinding the mixture after sintering.

18. (Previously Presented) The method as claimed in claim 17, wherein the fluorescent material is excited by a light source having a wavelength between 430 nm and 490 mn.

19. (Cancelled)

20. (Previously Presented) The method as claimed in claim 17, wherein the metal compounds include oxides, nitrates, organic metal compounds, or metal salts of terbium, aluminum, cerium, and Re, or the combinations thereof.

21. (Previously Presented) The method as claimed in claim 17, further including a step of using a reduction gas to reduce an ion of Re at 1200°C for 12 hours before the step of grinding the mixture after sintering.

22. (Previously Presented) The method as claimed in claim 21, wherein the reduction gas is H_2/N_2 (8%:92%).

23. (Original) The method as claimed in claim 17, wherein the step of basifying the dissolved mixture uses an alkaline substance that is an alkaline compound and that is capable of reacting with a metal ion chelate to form a gel.